



#7/B  
16529-4-01

ATTORNEY DOCKET NO.UBC.P-005-2  
PATENT APPLICATION  
AUGUST 27, 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Withers et al. Examiner: Slobodyanski, E.  
Serial No.: 09/837,711 Art Unit: 1652  
Filing Date: April 17, 2001 Conf. No.: 1131  
Title: *Methods and Compositions for the Synthesis of Oligosaccharides  
Using Mutant Glycosidase Enzymes*

RECEIVED  
SEP 04 2001  
TECH CENTER 1600/2900

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Responsive to the Office Action mailed July 27, 2001 for the above-referenced application, please make the following amendments:

In the claims:

Please cancel claims 1-39 and add new claims 40-70 as follows:

40. (new) A method for synthesizing an oligosaccharide comprising the steps of:
- (a) combining a glycosyl donor molecule and a glycoside acceptor molecule in a reaction mixture; and
  - (b) enzymatically coupling the donor molecule to the acceptor molecule using a mutant form of glycosidase enzyme to form the oligosaccharide, said enzyme being selected from among glycosidase enzymes having two catalytically active amino acids with carboxylic acid side chains within the active site of the wild-type enzyme, and said mutant enzyme being mutated to replace one of said amino acids having a carboxylic acid side chain with a different amino acid of comparable or smaller size, said different amino acid having a non-carboxylic acid

Certificate of Mailing under 37 CFR § 1.8: This paper and the attachments named herein are being deposited with the United States Postal Service with sufficient postage as first class mail and addressed to Assistant Commissioner for Patents, Washington, D.C. 20231 on August 27, 2001 by D'Arcy Straub.

*[Signature]*